BEFORE THE BOARD OF ENVIRONMENTAL REVIEW
OF THE STATE OF MONTANA

In the matter of the amendment of ARM 17.30.716, 17.36.912, 17.36.914, 17.36.916, 17.36.922, 17.38.101, and 17.38.106 pertaining to incorporation by reference of DEQ-4 as it pertains to water quality	)	NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENT (WATER QUALITY)

TO: All Concerned Persons

1. On July 13, 2004, at 1:30 p.m., the Board of Environmental Review will hold a public hearing, in conjunction with the Department of Environmental Quality's hearing for MAR Notice No. 17-212, in Room 111, Lee Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment of the above-stated rules.

2. The Board will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact the Board no later than 5:00 p.m., June 28, 2004, to advise us of the nature of the accommodation that you need. Please contact the Board Secretary at P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2544; fax (406) 444-4386; or email ber@state.mt.us.

3. The rules proposed to be amended provide as follows, stricken matter interlined, new matter underlined:

17.30.716 CATEGORIES OF ACTIVITIES THAT CAUSE NON-SIGNIFICANT CHANGES IN WATER QUALITY (1) remains the same.

(2) Except as provided in (5), a subsurface wastewater treatment system (SWTS) that meets all of the criteria in (2)(a) and falls within one of the categories in (2)(b) is nonsignificant.

(a) The SWTS, including primary and replacement drainfields must meet all of the following criteria:

(i) through (v) remain the same.

(vi) the SWTS must meet the current design standards defined in ARM Title 17, chapter 36, subchapter 3 and department Circular DEQ-4, 2004 edition; and

(vii) through (6)(d) remain the same.

AUTH: 75-5-301, 75-5-303, MCA
IMP: 75-5-303, 75-5-317, MCA

17.36.912 DEFINITIONS (1) through (7) remain the same.

(8) "Experimental system" means a wastewater treatment system for which specific design standards are not provided in department Circular DEQ-4, ~~2002~~ 2004 edition, DEQ-2, 1999 edition, or this subchapter.

(9) through (34) remain the same.

(35) "Variance" means the grant, pursuant to ARM 17.36.922, by the reviewing authority of an exception to the minimum requirements set out in this subchapter or department Circular DEQ-4, ~~2002~~ 2004 edition.

(36) through (37) remain the same.

AUTH: 75-5-201, MCA
IMP: 75-5-305, MCA

17.36.914 WASTEWATER TREATMENT SYSTEMS - TECHNICAL REQUIREMENTS (1) Except as provided in ARM 17.36.916, all wastewater treatment systems must be designed and constructed in accordance with the applicable requirements in ARM 17.36.913 and in department Circular DEQ-4, ~~2002~~ 2004 edition.

(2) Department Circular DEQ-4, ~~2002~~ 2004 edition, which sets forth standards for subsurface sewage treatment systems is adopted and incorporated by reference for purposes of this subchapter. Copies are available from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

(3) through (7) remain the same.

AUTH: 75-5-201, MCA
IMP: 75-5-305, MCA

17.36.916 ABSORPTION BEDS, HOLDING TANKS, SEEPAGE PITS, PIT PRIVIES, CESSPOOLS - TECHNICAL REQUIREMENTS AND PROHIBITIONS

(1) The wastewater treatment systems described in (3) through (7) may be allowed only if the reviewing authority determines that:

(a) site constraints prevent the applicant from constructing any system described in department Circular DEQ-4, ~~2002~~ 2004 edition;

(b) through (2) remain the same.

(3) Absorption beds may be used for replacement systems only and may not be constructed in unstabilized fill. Absorption beds must also meet the design and construction requirements in department Circular DEQ-4, ~~2002~~ 2004 edition.

(4) Seepage pits may be used for replacement systems only, and only when no other means of treatment and disposal is available.

(a) remains the same.

(b) Permit applications for seepage pits must include plans for the proposed pit. Seepage pits must meet the design and construction requirements in department Circular DEQ-4, ~~2002~~ 2004 edition.

(5) Holding tank systems may be approved only if the facility to be served is for seasonal use.

(a) remains the same.

(b) Holding tanks must meet the design and construction requirements in department Circular DEQ-4, ~~2002~~ 2004 edition.

(c) through (iv) remain the same.

(6) Sealed pit privy systems may be approved only if the facility to be served does not have a piped water supply, and the facility is a seasonal-use recreational site.

(a) Permit applications for sealed pit privies must include plans for the proposed sealed pit. Sealed pit privy systems must meet the design and construction requirements in department Circular DEQ-4, ~~2002~~ 2004 edition.

(7) and (8) remain the same.

AUTH: 75-5-201, MCA
IMP: 75-5-305, MCA

17.36.922 LOCAL VARIANCES (1) As provided in this rule, a local board of health, as defined in 50-2-101, MCA, may grant variances from the requirements in this subchapter and in department Circular DEQ-4, ~~2002~~ 2004 edition.

(2) through (4) remain the same.

AUTH: 75-5-201, MCA
IMP: 75-5-305, MCA

17.38.101 PLANS FOR PUBLIC WATER SUPPLY OR WASTEWATER SYSTEM (1) through (3)(h)(ii) remain the same.

(4) Before commencing or continuing the construction, alteration, extension, or operation of a public water supply system or wastewater system, the applicant shall submit a design report along with the necessary plans and specifications for the system to the department or a delegated division of local government for its review and written approval. Two sets of plans and specifications are needed for final approval. Approval by the department or a delegated division of local government is contingent upon construction and operation of the public water supply or wastewater system consistent with the approved design report, plans, and

specifications. Failure of the system to operate according to the approved plans and specifications or the department's conditions of approval is an alteration that requires resubmittal of a design report, plans, and specifications for department approval.

(a) through (c) remain the same.

(d) The board hereby adopts and incorporates by reference ARM 17.36.320 through 17.36.325, 17.36.327 and 17.36.345. The design report, plans, and specifications for public subsurface sewage treatment systems must be prepared in accordance with ARM 17.36.320 through 17.36.325, 17.36.327 and 17.36.345 and in accordance with the format and criteria set forth in Circular DEQ-4, "Montana Standards for Subsurface Wastewater Treatment Systems," ~~2002~~ 2004 edition.

(e) through (13) remain the same.

(14) The board hereby adopts and incorporates by reference the following:

(a) through (c) remain the same.

(d) Department of Environmental Quality Circular DEQ-4, ~~2002~~ 2004 edition, which sets forth standards for subsurface wastewater treatment systems.

(e) and (15) remain the same.

AUTH: 75-6-103, MCA
IMP: 75-6-103, 75-6-112, 75-6-121, MCA

17.38.106 FEES (1) remains the same.

(2) Fees for review of plans and specifications are based on (2)(a) through (e) and (3). The total fee for the review of a set of plans and specifications is the sum of the fees for the applicable parts or sub-parts listed in these citations. Approval will not be given until fees calculated under this rule have been received by the department.

(a) and (b) remain the same.

(c) The fee schedule for designs requiring review for compliance with department Circular DEQ-4, ~~2002~~ 2004 edition, is as specified in the fee schedule in ARM 17.36.802 for wastewater disposal systems.

(d) through (5) remain the same.

AUTH: 75-6-108, MCA
IMP: 75-6-108, MCA

REASON: These amendments are proposed because it is necessary to revise the current edition of DEQ-4. The reasons for each change to the 2002 Circular are described below. The specific changes to the Circular are shown, in

underline/strikeout format, at http://www.deq.state.mt.us/wqinfo /Sub/Circulars.asp.

CHAPTER 4 SITE MODIFICATIONS, Section 4.3.3.2

The current language in 4.3.3.2 is contradictory. The original intent of this section was to disallow the use of fill for the purpose of meeting the minimum separation distance to a limiting layer. The first sentence suggests the contrary, and is being replaced with language consistent with the original intent.

CHAPTER 5 WASTEWATER FLOW, Section 5.4

The current language in section 5.4 conflicts with language in section 16.1 for recirculating sand filters that states "The wastewater strength discharged to the sand filter must not exceed residential strength wastewater." The original intent of section 5.4 was to require the use of treatment systems specifically designed to pretreat high strength wastewater. The sand filter mentioned in this section is not the same type of sand filter described in Chapter 16. Therefore, the reference to sand filters and aerobic treatment units in this section is being eliminated to avoid confusion, and the reader is instead referred to EPA guidance.

CHAPTER 6 DESIGN OF SEWERS, Section 6.2.1
CHAPTER 7 SEPTIC TANKS, Section 7.1
CHAPTER 8 STANDARD ABSORPTION TRENCHES, Section 8.1

The 2000 edition of Circular DEQ-4 allowed the discharge of water softener backwash into septic systems with a recommendation that the effluent should not be discharged to septic system drainfields in soils with clay that exhibit shrink/swell properties. During subdivision task force meetings on proposed revisions to the 2000 edition, several members expressed concerns that there were apparent links between failed septic systems and the use of water softeners. The circular was revised such that the 2002 edition prohibited the discharge of water softener backwash into septic systems. After publication, representatives of the water softener industry approached DEQ with concerns that such a prohibition was unsubstantiated, and that there was no clear

evidence of detrimental impacts to septic systems from water softeners that were properly operated and maintained.

To address the water softener industry's concerns, a committee was formed that included members of the subdivision task force and industry representatives to discuss the issue and exchange information. Based on the information presented during the discussions, it became apparent that the evidence for prohibiting water softener backwash into septic systems was inconclusive. The main body of technical documentation presented to the committee indicated that there should not be problems with discharging backwash to septic systems. The DEQ also contacted state agencies across the country and found that, of the agencies that responded back to DEQ, most do not prohibit water softener backwash into septic systems. To determine if there were any problems with water softeners and septic systems occurring on a statewide level, DEQ surveyed sanitarians in 38 counties/regions in Montana. The results of that survey indicated that there were no documented septic system failures that could be directly attributed to water softener backwash or the discharge of backwash into soils that contained clay with shrink/swell properties. Many of the respondents, however, did indicate that there were probably cases of septic system failures that were caused by hydraulic overloading from improperly sized drainfields that received discharge from water softeners and reverse osmosis units.

The proposed revision to Circular DEQ-4 removes the prohibition against discharge of water softener backwash into septic systems, and imposes a set of conditions on the use of water softeners and other water treatment devices such as iron filters and reverse osmosis units. To minimize the amount of water softener backwash discharged to the septic system, the new language incorporates the use of a demand-initiated regeneration (DIR) control device and adds the requirement to treat only interior water. This is nearly identical to the solution developed by the state of Texas, which also had previously prohibited the discharge of backwash from water softeners and reverse osmosis units into septic systems. The state of Wisconsin has a similar DIR requirement.

The new circular language also addresses potential impacts to aerobic, nonstandard, and proprietary sanitary wastewater treatment systems by requiring that the discharge meet the specifications of the designer/manufacturer of the system. The issue of potential hydraulic overloading also is addressed by adding a requirement in Chapter 8 to accommodate the additional flow of backwash water in drainfield sizing. Lastly, the potential for problems with backwash in clay soils is addressed with a recommendation that septic system designers consult with local health officials to determine if

area soils contain clay with shrink/swell properties that may lead to premature septic system failure.

The revised language concerning water softeners and other water treatment devices is intended to strike a balance between the need to impose protective measures for septic systems/water quality and the level of scientific information currently available to justify those protective measures statewide. As needed, each county also has the ability to impose more stringent requirements than those specified in Circular DEQ-4 so that they may tailor their wastewater treatment regulations to local/regional conditions.

CHAPTER 8 STANDARD ABSORPTION TRENCHES, TABLE 8-1 and TABLE 8-2
CHAPTER 12 SAND-LINED ABSORPTION TRENCHES, Section 12.1

Footnote (a) in Tables 8-1 and 8-2 currently requires pressure-dosed systems if the soil for three feet below the infiltrative surface contains more than 15 percent gravel. The term "gravel" is general and covers a broad spectrum of soil textures, some of which may not require pressure dosing. For clarification, the term gravel is replaced with "gravelly sand or very coarse sands". This is consistent with the soil texture associated with a percolation rate of less than three minutes per inch. Further clarification also is added to the footnote to require sand-lined trenches in very gravelly sand or coarser-textured soils. The revised language for pressure dosing is then carried over to section 12.2 for sand-lined absorption trenches so that the requirement for pressure dosing in soils with a percolation rate less than three minutes per inch is consistent with the requirements in Tables 8-1 and 8-2.

CHAPTER 17 RECIRCULATING TRICKLING FILTERS, Section 17.2.6

With the exception of the filter media, a recirculating trickling filter is nearly identical to a recirculating sand filter from an engineering design perspective. New language is proposed to be added to section 17.2.6 that is identical to the requirements imposed in section 16.2.6 for recirculating sand filters. The reason for the tank to be sized to 1.5 times the daily flow is because it must have sufficient volume to accept the normal daily flow, a portion of the preceding day's flow, and still allow for a holding period for biological activity to occur.

CHAPTER 20 AEROBIC WASTEWATER TREATMENT UNITS, Section 20.3.4.1

CHAPTER 22 EXPERIMENTAL SYSTEMS, Section 22.5.1

The requirements in these sections are being replaced by those in a new rule that is currently in the process of adoption by the Board. These revisions are being made in anticipation of amendments to ARM 17.30.702 and new rule I [ARM 17.30.718] pertaining to the definition of nutrient-reducing subsurface wastewater treatment systems. The amendments to ARM 17.30.702 and new rule I have been publicly noticed in the Montana Administrative Register (MAR Notice No. 17-206, February 26, 2004, page 387). The proposed amendments to sections 20.3.4.1 and 22.5.1 refer to ARM 17.30.718 concerning nutrient reduction.

4. Concerned persons may submit their data, views or arguments, either orally or in writing, at the hearing. Written data, views or arguments may also be submitted to the Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620-0901, faxed to (406) 444-4386 or emailed to the Board Secretary at ber@state.mt.us and must be received no later than 5:00 p.m., July 21. To be guaranteed consideration, mailed comments must be postmarked on or before that date.

5. Thomas Bowe, attorney for the Board, has been designated to preside over and conduct the hearing.

6. The Board maintains a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control; water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supplies; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Such written request may be mailed or delivered to the Board of Environmental Review, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901, faxed to the office at (406) 444-4386, emailed to the Board Secretary at ber@state.mt.us, or may be made by completing a request form at any rules hearing held by the Board.

7. The bill sponsor notice requirements of 2-4-302, MCA, do not apply.

Reviewed by: BOARD OF ENVIRONMENTAL REVIEW

James M. Madden By: *Joseph W. Russell*

JAMES M. MADDEN
Rule Reviewer

JOSEPH W. RUSSELL, M.P.H.,
Chairman

Certified to the Secretary of State June 7, 2004.